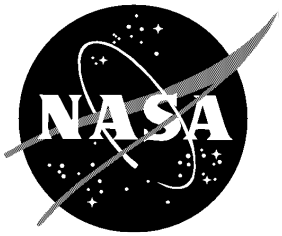

National Aeronautics
and Space Administration

JULY 9, 2001
CAN-01-OBPR-01

Cooperative Agreement Notice

NASA BioScience and Engineering Institute

Soliciting Proposals for a
NASA BioScience and Engineering Institute
(NBEI)

Notices of Intent (NOIs) due:	**August 9, 2001**
Proposals due:	**September 10, 2001**

Table of Contents

Cooperative Agreement Notice

Office of Biological and Physical Research
National Aeronautics and Space Administration
Washington, DC 20546-0001

NASA BioScience and Engineering Institute (NBEI)

1.0 Introduction

This Cooperative Agreement Notice (CAN) solicits proposals for a single academic institution (or academic institution consortia with a clear lead institution responsible for oversight and coordination of the Institute activities) to establish a NASA BioScience and Engineering Institute (NBEI) that plans, promotes, and executes research, technology and education efforts critical to the mission of the National Aeronautics and Space Administration. The selection official for this solicitation will be the NASA Chief Scientist / Acting Associate Administrator for the NASA Office of Biological and Physical Research (OBPR), Washington, DC. NASA plans to enter into a Cooperative Agreement with the selected proposer for the NBEI. The Institute, working with NASA, shall provide the intellectual leadership role and form the central focus of the science and research program conducted at the Institute. NASA encourages proposals for Institute formation from all segments of the academic community. It should be noted that a Cooperative Agreement implies that a substantial involvement is expected between NASA and the recipient during the performance of the proposed and selected activity. Although managed by and as an independent entity, the Institute's NASA affiliation is one of its essential characteristics. The planned maximum period of this agreement is 10 years. The initial award will cover a 5-year period with a renewal provision for an additional 5 years.

The primary purpose of the Institute is to enable world-class research, development, U.S. technology transfer, and education in BioScience and Engineering related to NASA's overall missions with emphasis on missions in Biology and Physical Research, and Human Exploration and Development of Space. The proposer is referred to the current NASA strategic plan for further information regarding NASA and OBPR's missions, goals, and objectives (http://SpaceResearch.nasa.gov). BioScience and Engineering integrates physical, chemical, mathematical, and microgravity-based science and engineering fundamentals with biological concepts and methods for the study and understanding of medicine and health, and for the development of biology-inspired engineering systems. Section 3.2 identifies some prominent examples of BioScience and Engineering topics of current research importance. NASA offers unique facilities including the space environment (e.g. International Space Station) in which to perform BioScience and Engineering studies. Through the cooperative agreement between NASA and the Institute, it is expected that the scientific foundation for cutting-edge bioengineering technologies for use on earth and in space will be established.

Detailed information for preparing a proposal in response to this CAN along with sample forms and certifications required for submission are included in the following appendices:

Appendix A: Proposal Preparation Instructions to Offerors

Appendix B: OBPR Policy for Education and Public Outreach

Appendix C: Model Cooperative Agreement Including Provisions

Appendix D: Proposal Submission Information

Identifier: **CAN 01-OBPR-01**

Submit Notice of Intent (NOI) to: *http://proposals.hq.nasa.gov/*

Submit Proposals to: Dr. Don Roth
c/o NASA Peer Review Services
Code UG
Suite 200
500 E Street, S.W.
Washington, DC 20024

The alternate contact is: Dr. Eugene Trinh, Director, Code UG

Notices of Intent Due: 8/9/01

Proposal Due Date: 9/10/01

# of Proposal Copies Required: 10 (including signed original)

Additional programmatic information about the NBEI solicitation may be obtained from:

Dr. Don Roth
Physical Sciences Division
Code UG
Office of Biological & Physical Research
NASA Headquarters
Washington, DC 20546
Phone: (202) 358-1764
Fax: (202) 358-3091
E-mail: droth@hq.nasa.gov

The alternate contact is: Dr. Eugene Trinh, Director, Code UG
Phone: (202) 358-1490
Fax: (202) 358-3091
E-mail: etrinh@mail.hq.nasa.gov

Questions specifically about this solicitation should be emailed to the address above.
Note: questions and answers will be accepted up to 2 weeks before the CAN proposals are due.

Selecting Official:

Dr. Kathie Olsen
Chief Scientist / Acting Associate Administrator for the Office of Biological and Physical Research

Selections Announced: 1/11/02

2.0 Roles and Responsibilities

2.1 Institute

The Institute will establish and maintain an intellectual leadership role for its science activities, serving as a national focal point for BioScience and Engineering research related to NASA missions. NASA's vision for the Institute is that the Institute play a significant role in the research planning of NASA's BioScience and Engineering thrust by informing NASA of current and vital research themes in BioScience and Engineering.

The Institute is expected to assume a leadership role in areas such as identification, prioritization and implementation of cutting edge research (both ground- and flight-based), dissemination of Institute research results, identification of U.S. technology transfer opportunities and outstanding educational and outreach activities related to BioScience and Engineering (see section 2.3).

2.2 NASA

The relationship between NASA and the Institute must be mutually beneficial and synergistic so that it provides benefits and progress greater than either organization could achieve independently. NASA's primary role in the Cooperative Agreement will be to provide a long-term funding commitment, general strategic direction, manage the Peer-Review research process and funded efforts, and provide access to NASA facilities as appropriate to support and facilitate the BioScience and Engineering research conducted at the NBEI (see section 2.3). The Physical Sciences Division in the Office of Biological and Physical Research at NASA Headquarters will lead the programmatic and strategic support for the NBEI. NASA offers unique facilities including the space environment in which to perform BioScience and Engineering studies.

If you propose to use facilities or resources located at a NASA Field Center, please contact the appropriate individuals listed in the following chart:

Name/Center	Phone Number	Email
Howard Ross/ Glenn Research Center	216-433-2562	Howard.D.Ross@grc.nasa.gov
John Hines/ Ames Research Center	650-604-5538	jhines@mail.arc.nasa.gov
Darrell Jan/ Jet Propulsion Lab	818-354-4542	Darrell.L.Jan@jpl.nasa.gov
Neal Pellis/ Johnson Space Center	281-483-2357	neal.r.pellis1@jsc.nasa.gov npellis@ems.jsc.nasa.gov
Craig Kundrot/ Marshall Space Flight Center	256-544-2533	Craig.Kundrot@msfc.nasa.gov
William Knott/ Kennedy Space Center	321-867-6988	William.knott-1@ksc.nasa.gov

2.3 Summary of Roles and Responsibilities

NASA HQ	Institute	NASA Center(s)
• Review/approval of the NBEI • Program/Project management of the NBEI (responsible for Annual Institute Reviews) • Provide strategic planning, policy development, advocacy, and oversight • Provide budget planning, formulation and resource allocation • Manage Peer Review process and grant selection for NBEI intramural-submitted research	• Inform NASA of vital current research themes in BioScience and Engineering • Assume Leadership role in identification and prioritization of BioScience and Engineering research • Execute ground-based and flight research identified by the Institute and selected through NASA Peer Review, and disseminate research results • Facilitate access to unique facilities, data & expertise • Conduct education and outreach programs • Support U.S. technology transfer programs • Provide long-term institutional commitment and resources (see section 5.5)	• Award a Cooperative Agreement with successful proposing institution • Financial management responsibility for the NBEI • Manage Peer Review funded research efforts • Optionally partner in research efforts with Institute researchers • Provide ground- and/or flight-based facility operations (e.g., operational laboratories, drop towers, KC-135, WETF, simulators, STS, ISS) • Provide NASA-unique engineering services • Provide Payload and Mission Management (payload definition, payload development, mission manifesting, integration, test, operations)

3.0 Background and Science Scope

3.1 General

NASA has identified an approach, the establishment of science Institutes, which will permit greater external community involvement in NASA's overall science and engineering programs and provide intellectual leadership. NASA's vision for the NBEI is that it plays a significant role in the research planning and implementation of NASA's BioScience and Engineering research program. Through the cooperative agreement between NASA and the Institute, it is expected that the scientific foundation for cutting-edge bioengineering technologies for use on Earth and in space will be established.

3.2 Sample Research Topics

It is likely that an wide range of Bioscience and Engineering topics can impact NASA's goals and missions. The research topics described below offer examples of representative interdisciplinary topics appropriate for research by the NBEI. These concepts are not meant to be all inclusive, but to convey the scope and breadth of projects, as well as the integration of the various disciplines required to pursue them successfully: It is expected that the Institute will provide leadership in terms of defining areas where greatest potential exists for a significant impact upon NASA missions. At that point, the Institute and NASA might decide to more narrowly define a subset of areas in which to support research.

- Molecular-scale imaging and manipulation / single macromolecule characterization
- Biological Imaging on cellular and molecular scale
- Fluid dynamics associated with rotating Bioreactors and low-gravity effects
- Tissue Engineering cell culture in variable gravity and flow environments
- Protein crystallization processes and protein structure / function characterization
- Characterization of cellular sensors for stress, strain, and shear flow
- Bioinformatics (Biological Data Organization Approaches)
- Biofluid and microfluid dynamics / Physiological implications and microdevices applications
- Nano- and micro-scale transport processes
- Biomaterials development and nano-structure applications
- Self-assembling mechanisms, nano- to meso-scale evolution, and gravity effects
- Molecular-scale motors and cellular processes
- Biomimetics (study of the structure and function of biological materials for the purpose of analogous synthetic design and manufacturing.)
- Novel Bioengineering Instrumentation & Devices for Earth and Space applications
- Biological / Physiological Processes Modeling**/** Computational Biology
- Miniaturized and automated instrumentation development for Space applications

4.0 Institute Scenario

4.1 General Scope

NASA will establish a NASA BioScience and Engineering Institute (NBEI) chosen through this CAN, to promote state-of-the-art research, education, and U.S. technology transfer in BioScience and Engineering related to NASA's missions.

NASA expects the Institute to lead in identifying and developing new research and technology directions; in the coordination, integration, and communication of interdisciplinary contributions; and in the development of a new generation of Bioengineers. A major goal of NASA's program in BioScience and Engineering is to capitalize on the great public appeal of BioScience and Engineering by building an education and outreach program to share the excitement of discovery with the people who pay for it. The Institute will be expected to propose and develop its own education and public outreach programs consistent with National and State education standards (see Appendix B).

A high priority activity of the Institute will be to provide a forum for the exchange and development of ideas in BioScience and Engineering. The scope and nature of the Institute will evolve over time. However, in order to fulfill its primary role of enabling BioScience and Engineering research, as a minimum, the Institute's activities are expected to include:

- Proposing high-quality, state-of-the-art research in BioScience and Engineering related to NASA's missions
- Dissemination of advances in knowledge to the science and research community (via journal publication, lecture presentation, web-based presentation, etc.).
- Encouraging frequent scientific interchange among Institute-sponsored research groups.
- Implementation of undergraduate and graduate cross-training programs that will allow students in one discipline area of BioScience and Engineering to study and work in another allied discipline, thus training a new generation of interdisciplinary scientists. Part of this effort may include summer schools for undergraduate and graduate students.
- Organizing and coordinating seminars and workshops; offering courses in BioScience and Engineering; organizing workshops to determine the need, and establish priorities, for national facilities for BioScience and Engineering research.
- Coordinating programs in K-12 education consistent with education standards.
- Establishing an information repository and distribution center for Institute BioScience and Engineering research results including, for example, scientific products, materials for education and public outreach, and results of community assessment of directions and priorities in the field.

4.2 NASA-funded Activities of the Institute

Funding for the Institute is ~ $3 million/year, contingent upon the availability of appropriated funds, and will include support for core activities (Institute startup, salaries for key personnel, Institute operations) and Peer-Reviewed intramural research by Institute member researchers. (Non-advocate Peer Review will be managed and conducted by NASA.)

4.3 Institutional Commitment and Additional Resources (see section 5.5 also)

NASA expects the Institute to also provide significant resources as part of the Cooperative Agreement. Even though NASA makes long-term funding commitments, the NBEI, as an independent entity, is strongly encouraged to obtain funding support from other sources, including non-governmental sources. The Institute may also compete for additional NASA funding through the Peer Review process. This additional funding support shall be for purposes consistent with the Institute's overall mission.

4.4 Scientists Program

As part of the core activities, the NBEI is encouraged to provide visiting researcher opportunities for university faculty, NASA scientists, postdoctoral researchers, graduate students, and industrial managers and scientists. After the visitation period, the NBEI may consider further opportunity to assure continued interaction and cross-fertilization of expertise, information, and technological advances.

4.5 Participation of Commercial Entities

The NBEI should encourage the participation of commercial entities in its research and technology development activities. Commercial entities are encouraged to seek applications for advanced technologies developed as a result of the NBEI's efforts. Cost-sharing by the private sector in research conducted with the NBEI is expected. As the NBEI evolves, it will develop formal policies and procedures that promote the commercial licensing of technology developed through NBEI activities.

4.6 Participation of Foreign Entities

Foreign entities (non-U.S. agencies, universities, or institutions) can participate as team members of the Institute with participation limited to collaborating on research proposals with U.S. members of the Institute, as well as providing educational and outreach resources and functions. Foreign entity participation shall take place on a no-exchange-of-funds basis in which the non-U.S. sponsoring agency or funding institution will bear the cost of discharging their respective responsibilities. See Appendix A sections 12 and 13, and Appendix C Provision 19, for further guidelines regarding foreign entity participation.

4.7 Support of Education and Outreach

NASA envisions that the Institute will be structured and operated in a manner which supports the country's educational initiatives and goals (including historically black colleges and universities and other minority universities), and in particular the need to promote scientific and technical education at all levels. NASA envisions that the Institute will support its goals for public awareness and outreach to the general public (see Appendix B). The NBEI is invited to participate in NASA-funded educational programs.

4.8 Institute Performance Reviews

The progress and plans of the NBEI (as detailed in the NBEI annual report) will be reviewed annually for the first four years prior to receiving continued NASA support. In the fourth year of operation the NBEI may submit a renewal proposal for continued support which will undergo Peer Review. This review will include a comprehensive evaluation of the achievements and future plans and will determine if the NBEI is meeting the goals and objectives as originally proposed. If the review is passed successfully, the NBEI agreement will be renewed for another 5-year period beyond the first 5-year period for a total of 10 years of operation. An incremental phase down of activity will occur over the last 3 years of the 10-year period, that is, in years 8, 9 and 10. Once the NBEI agreement is renewed, Peer Review will shift to every two years, that is, in years 6 and 8. NBEI's that do not pass the fourth year renewal review will be phased-out over a one-year period at a reduced level of funding. NASA will support an NBEI for a maximum of 10 years.

5.0 Proposal Process

5.1 General Guidance

A Cooperative Agreement Notice (CAN) will be issued for the selection and award of the NBEI.

Proposals should clearly articulate the innovative interdisciplinary research program to be performed and the long-term institutional commitment to BioScience and Engineering and to the NBEI. Proposals will be entertained that range in scope:

- from an interdisciplinary team consisting of existing staff and organizational structure
- to a new interdisciplinary organizational unit (e.g., "Center for BioScience and Engineering Studies") and/or a new department, with the addition of new positions, and including one or more research teams
- with either attacking a major BioScience and Engineering research theme or series of research themes.

Proposers should recognize that NASA's Institute budget subject to the availability of funding. The level of funding of $3M is planned to remain constant for the next several years.

5.2 Eligibility

Proposals for the Institute may be submitted by an individual academic institution or a consortia of academic institutions. A single university may submit no more than one proposal as the clear lead, but may be involved as a partner in additional proposals submitted by other institutions as part of a consortia**.** For proposals from a single university, that university must be a U.S. academic institution. For proposals from consortia, a U.S. academic institution must be identified as the lead institution.

Foreign entities (non-U.S. agencies, universities, or institutions) can participate as team members of the Institute with participation limited to collaborating on research proposals with U.S. members of the Institute, as well as providing educational and outreach resources and functions. Foreign entity participation shall take place on a no-exchange-of-funds basis in which the non-U.S. sponsoring agency or funding institution will bear the cost of discharging their respective responsibilities. See Appendix A sections 12 and 13, , and Appendix C Provision 19, for further guidelines regarding foreign entity participation.

5.3 Selection Process

Proposals will undergo full Peer Review by discipline specialists with expertise in the area of BioScience and Engineering. Reviewers are selected with due regard for conflict-of-interest and protection of proposal information. Peer Review panel recommendations will be presented to the NASA Selecting Official. Site visits of potentially successful offerors may be conducted by an ad hoc Advisory Committee and would cover all aspects of a proposal. If site visits are conducted, findings and recommendations will be presented to the Selecting Official along with Peer Review panel recommendations.

Selection will be made by NASA HQ. NASA will enter into a Cooperative Agreement with a single legal entity.

5.4 Notice of Intent (NOI)

In order to plan for a timely and efficient Peer Review process, lead institutions intending to submit a proposal should submit a Notice of Intent (NOI) through their sponsored research

office. NASA understands that the submission of an NOI is not a commitment to submit a proposal, nor is the information contained therein considered binding on the submitter.

The NOI, not to exceed 500 words should include: A title page, the name of the lead (and other participating) institution(s), names and affiliations of the proposed NBEI director and associate directors, a brief summary of the vision for the NBEI, a summary of the research plan and a brief statement regarding the relevance to NASA's strategic vision and any planned interactions.

NOIs should be submitted electronically to the NASA Peer Review Services (NPRS) intranet database. First, proposers must login to obtain a username and password at the following web-address: <http://proposals.hq.nasa.gov/>

5.5 Resource Sharing / Institutional Commitment Requirements

For eligibility purposes, resource sharing / institutional commitment is required for all proposals submitted in response to this solicitation. In general, commitment of critical resources that are offered at no cost to NASA's BioScience and Engineering program clearly constitute institutional commitment. Proposals must demonstrate institutional commitment to the level of resource sharing proposed for the cooperative agreement establishing the NBEI. Accordingly, proposals must be signed by an official authorized to commit the university or consortium to the resource sharing proposed and include a positive statement of confirmation regarding resource sharing.

The term 'institutional commitment' is intended to include those aspects of the existing or proposed infrastructure that contribute or will contribute in a substantial way to the development of the field of BioScience and Engineering and the NBEI. Examples include: training of undergraduate, graduate, and postgraduate researchers in BioScience and Engineering; academic degree programs in BioScience and Engineering; departments of and centers for BioScience and Engineering, including permanent (e.g. tenured and/or tenure track, civil service, etc.) positions; offices, laboratories, other experimental facilities, and associated research groups that can be shown to be of direct and substantive benefit to the Institute and/or the proposed research program; computational facilities for research in computational issues within BioScience and Engineering areas of study; and engineering and technology planning and development capabilities which allow substantive contributions to existing or planned NASA missions, with direct relevance to BioScience and Engineering research goals.

5.6 Budgetary Limitations

The proposed annual budget for NBEI is $3M per year of NASA support. Proposals outside this range will be ineligible.

5.7 Site Visits

As part of the Institute selection process, site visits of potentially successful offerors may be conducted by an ad hoc Advisory Committee and would cover all aspects of a proposal. . If site visits are conducted, findings and recommendations will be presented to the Selecting Official along with Peer Review panel recommendations.

5.8 Solicitation/Award Schedule

Date	Action
4/19/01	Issue Synopsis in CBD
5/1/01	Draft Solicitation Issued for Public Comment
6/1/01	Public Comment Due
7/9/01	Formal Solicitation Issued
8/9/01	Notice of Intent Due
9/10/01	Proposals Due
11/01	Site Visits (optional)
1/11/02	Selection of Successful Proposal
3/28/02	Cooperative Agreement Awarded

6.0 Proposal Evaluation Criteria

The evaluation of proposals will be based on the following evaluation criteria (all criteria of equal importance):

- Scientific and technical merit of the proposed research program including plans for the integration of research, technology and education
- Quality of core management approach including cost realism, schedule, budget, risk management and relevance to OBPR's strategic goals
- Quality of Proposed Key Personnel & staffing plan
- Diversity of participation and overall outreach to science and education community

6.1 Scientific & Technical Merit

The **research record** of the proposing organization(s) will be evaluated together **with concepts proposed to produce results** in BioScience and Engineering research, technology and education. This includes **scientific breadth** of the proposed research and the **use of innovative and novel approaches** to accomplish research goals. In addition, a specific goal of the NBEI is to **support NASA's strategic vision of fostering integration of research, education and technology** development through the programs, projects and activities the Institute supports at academic and research institutions. These institutions provide abundant opportunities for individuals to concurrently assume responsibilities as researchers, educators and students. Offerors must address how they will strategically implement a **long-term, thematic and strategic relationship with an appropriate NASA Center or Centers** which integrate research, education and technology in such a way that the whole is greater than the sum of its parts. Evaluation will focus on how the NBEI will **engage problems pertinent to NASA's BioScience and Engineering strategic goals (within the framework of NASA's overall goals as provided in the NASA Strategic Plan)** and also assess plans for how the Institute will function as a **magnet for highly-qualified students interested in careers in BioScience and Engineering**.

6.2 Quality of Core Management Approach

The quality of core management approach should address concepts and approaches to establish and maintain the NBEI including **innovative approaches to ensure success**. **Cost**

realism, schedule, budget, and risk management will be evaluated. Concepts and approaches which demonstrate **how the NBEI will support the mission of the Institute** and **make best use of both NASA facilities and the offerors' research, facilities, staff and other resources** will be evaluated. The offerors must **demonstrate a commitment to providing the maximum scientific and research value for the resources expended and demonstrate the manner in which costs will be contained in fulfilling this commitment**. **Proposed cost-sharing** approaches should be documented.

6.3 Quality of Proposed Key Personnel & Staffing

The **identification and commitment of key NBEI personnel** (Director, Deputy Director, Senior Research Fellows) will be evaluated. The evaluation will include the experience, past performance, education and the overall capability of each of the personnel identified as key by the offeror as well as the commitment of these individuals to the offeror.

6.4 Diversity of participation and overall outreach to science and education community

It is NASA's goal to **provide for the widest practical participation by the scientific, educational and technological communities in the overall activities of the NBEI**. Proposals must describe plans to increase participation of all citizens, especially women and underrepresented minorities and persons with disabilities in research, education and technology fields and include plans for forming substantive, long-term partnerships and collaborations with minority-serving institutions and women's colleges.

7.0 Proposal Format and Instructions to Offerors

7.1 Proposal Format

See Appendix A for format guidelines, paying close attention to addressing the factors stated in section 6.0. Appendix D describes NOI and proposal submission.

7.2 Instructions to Offerors

Detailed information for preparing a proposal in response to this CAN along with sample forms and certifications required for submission is included in the following appendices:

Appendix A: Proposal Preparation Instructions to Offerors

Appendix B: OBPR Policy for Education and Public Outreach

Appendix C: Model Cooperative Agreement Including Provisions

Appendix D: Proposal Submission Information

Questions specifically about this solicitation should be emailed to droth@hq.nasa.gov (prior to Aug. 31, 2001) and etrinh@mail.hq.nasa.gov (after September 1, 2001).

Note: questions and answers will be accepted up to 2 weeks before the CAN proposals are due (August 27, 2001) so droth@hq.nasa.gov should receive all questions.

8.0 Administration of Funding

A NASA Field Center will award a Cooperative Agreement with successful proposing institution for the NBEI and have financial management responsibility for the NBEI. Except as noted otherwise, Cooperative Agreements in accordance with regulations 14 CFR Part 1260 for educational institutions will be used to fund the NBEI. (*see Grant and Cooperative Agreement Handbook*, NPG 5800.1D, available at http://procure.msfc.nasa.gov/grcover.htm).

PROPOSAL PREPARATION INSTRUCTIONS TO OFFERORS

The information contained in the following instructions is specific to this CAN and supplements the general guidance provided in the *Grants and Cooperative Agreement Handbook* that may be accessed at URL <http://procure.msfc.nasa.gov/grcover.htm>.

GENERAL FORMAT

A proposal must be typewritten using an easily legible font no smaller than 11 point, single-spaced in single or double columns with no more than 55 lines per page, and on standard, single-sided, 8.5x11 inch paper (or European A4 for non-U.S. proposals). For those proposal parts having page limits, foldouts may be used on a one-to-one exchange basis (i.e., a two-page foldout counts as two pages, etc.). No material (except NOIs and Proposal Forms) may be submitted on electronic media nor by reference to the World Wide Web. Metric units must be used.

PROPOSALS

(1) PROPOSAL COVER PAGE

The Proposal Cover Page must be filled out completely and should contain the proposal title; name and address of the submitting institution, and the name, address and telephone number of the institution authorizing official. The original signed version of this form should be submitted with the original copy of the proposal.

It is NASA policy to use information contained in proposals for evaluation purposes only. While this policy does not require that the proposal bear a restrictive notice, offerors or quoters should, in order to maximize protection of trade secrets or other information that is commercial or financial and confidential or privileged, place the following Notice on the Title Page of the proposal and specify the information subject to the Notice by inserting appropriate identification, such as page numbers, in the Notice. In any event, information (data) contained in proposals will be protected to the extent permitted by law, but NASA assumes no liability for use and disclosure of information not made subject to the Notice.

Notice of Restriction on Use and Disclosure of Proposal Information

The information (data) contained in [insert page numbers or other identification] of this proposal constitutes a trade secret and/or information that is commercial or financial and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of the offeror, be used or disclosed other than for evaluation purposes; provided, however, that in the event a contract (or other agreement) is awarded on the basis of this proposal, the Government shall have the right to use and disclose this information (data) to the extent provided in the contract (or other agreement). This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.

(2) EXECUTIVE PROPOSAL SUMMARY (Abstract – maximum 2 pages)

The Executive Proposal Summary should present a brief description of the full proposal. Note: It is NASA's intention to post Proposal Summaries of selected proposals for all of its programs in a publicly accessible data base. Therefore, the Proposal Summary should not contain

proprietary, confidential, or privileged information that the proposer may wish to protect from public disclosure.

(3) TABLE of CONTENTS (1 – 2 pages)

The Table of Contents should provide reference to each major part and subpart of the proposal using the part numbers indicated in this Appendix, e.g., page one of the Executive Summary is 5-1; page one of the Integrated Research Plan is p. 6-1; etc.

(4) BODY (20 pages)

The proposal should contain sufficient detail to fully describe the proposed effort in order to enable a reviewer to make informed judgments about the overall merit of the proposed Institute and about the probability that the Institute will be able to accomplish its stated objectives with the resources requested and with their own resources. Clearly describe the proposed program: its rationale, innovation, distinguishing features, unifying intellectual focus, proposed research plan, training, education/public outreach plan, and the management plan. The proposed institutional commitment should also be summarized. Describe available facilities and major items of equipment, and any additional major equipment required to be purchased in order to carry out the program of activities.

Training opportunities for undergraduates, postgraduates, and/or postdoctoral associates offered in the proposal should be explained in detail. This part should identify how qualified individuals will be recruited to this new field of research, and especially how the opportunities for interdisciplinary study and research will be enabled. The proposed selection process should indicate how adequate attention will be paid to the recruitment of women and minorities. This part should also summarize the training of students and/or post doctorates completed during the last three years under the directorship of the proposed senior personnel as evidence of their experience and commitment to this important aspect of the NBEI.

An Education/Public Outreach plan may describe proposed efforts for transferring knowledge to the K-12 student population consistent with National and State education standards and and/or the public at large, either locally or otherwise. See Appendix B for further guidance.

Sections 5 – 13 do not count towards 20 page limit of body

(5) BIOGRAPHICAL SKETCH OF KEY PERSONNEL

This part should contain the curriculum vitae of all key personnel who will manage and carry out the proposed research, training, outreach, and other Institute functions (not to exceed two pages each senior individual, including relevant publications, and one page each for junior personnel).

(6) PROPOSAL BUDGET SUMMARY
and
(7) PROPOSAL BUDGET PER YEAR

The budget summaries must provide the indicated information in the categories as shown on the specified form (Proposal Cover Sheet) for the entire proposed period of performance, as well as for <u>each</u> year of the proposed work, not to exceed five years.

(8) SUPPORTING BUDGETARY INFORMATION

This part should include the supporting information for the Budget Summary sheets, and may be in any format and as long as necessary. Offerors should exercise prudent judgment, since the amount of detail necessary will vary with the complexity of the proposal. This budget information should be sufficiently detailed to allow the Government to evaluate costs as to their reasonableness, allowability, and allocability. Sufficient proposal cost detail and supporting information will facilitate a speedy evaluation and award. Each budget entry should be explained if unclear.

(9) CURRENT AND PENDING SUPPORT

This part of the proposal should include information concerning other current projects being conducted by any of the proposing institutions and funded either by NASA or any other Government agency.

(10) APPENDICES (optional)

Can include any select preprints and/or reprints of articles that may not easily available in the published literature but that are deemed essential for the reviewers to evaluate the research proposed (note: such items should be judiciously selected for inclusion to avoid a proposal of untenable length).

(11) CERTIFICATIONS

Accepted by signing the proposal coversheet. The following certifications (i) Regarding Debarment, Suspension, And Other Responsibility Matters, and (ii) Regarding Lobbying are required of all U.S. applicants before a cooperative agreement can be awarded.

(12) ADDITIONAL GUIDELINES APPLICABLE FOR PROPOSALS INCLUDING FOREIGN PARTICIPATION

Foreign entities are generally not eligible for funding from NASA. Therefore, unless otherwise noted, proposals for Institute formation from U.S. entities that include foreign participation should not include a cost plan for the participation of the foreign entity. U.S. entities that include foreign participation must be endorsed by the respective government agency or funding/sponsoring institution in the country from which the foreign entity is proposing. Such endorsement should indicate that the proposal merits careful consideration by NASA, and if the proposal is selected, sufficient funds will be made available to undertake the activity as proposed.

Should a U.S. proposal with foreign participation be selected for the Institute, NASA's Office of External Relations will arrange with the foreign sponsor for the proposed participation on a no-exchange-of-funds basis, in which NASA and the foreign sponsor will each bear the cost of discharging their respective responsibilities.

Depending on the nature and extent of the proposed cooperation, these arrangements may entail:

(i) An exchange of letters between NASA and the foreign sponsor; or
(ii) A formal Agency-to-Agency Memorandum of Understanding (MOU)

(13) EXPORT CONTROL GUIDELINES APPLICABLE FOR PROPOSALS INCLUDING FOREIGN PARTICIPATION

Proposals for Institute formation from U.S. entities that include foreign participation must include a section discussing compliance with U.S. export laws and regulations, e.g., 22 CFR Parts 120-130 and 15 CFR Parts 730-774, as applicable to the circumstances surrounding the particular foreign participation. The discussion must describe in detail the proposed foreign participation and is to include, but not limited to, whether or not the foreign participation may require the prospective proposer to obtain the prior approval of the Department of State or the Department of Commerce via a technical assistance agreement or an export license, or whether a license exemption/exception may apply. If prior approvals via licenses are necessary, discuss whether the license has been applied for or if not, the projected timing of the application and any implications for the schedule. Information regarding U.S. export regulations is available at http://www.pmdtc.org and http://www.bxa.doc.gov . Proposers are advised that under U.S. law and regulations, spacecraft and their specifically designed, modified, or configured systems, components, and parts are generally considered “Defense Articles” on the United States Munitions List and subject to the provisions of the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120-130.

OFFICE OF BIOLOGICAL AND PHYSICAL RESEARCH (OBPR) POLICY FOR EDUCATION (K-12) AND PUBLIC OUTREACH

Individuals participating in the NASA BioScience and Engineering Institute program are required to help foster the development of a scientifically informed and aware public.

The Institute represents an opportunity for NASA to enhance and broaden the public's understanding and appreciation of the value of BioScience and Engineering research in the context of NASA's mission. Therefore, all participants in the Institute are strongly encouraged to promote general scientific literacy and public understanding of BioScience and Engineering research through formal and/or informal **education** opportunities.

Where appropriate, the supported institution will be required to produce, in collaboration with NASA, a plan for communicating to the public the value and importance of their work.

The institutions should have a clear and concise description of the education and **outreach** activities proposed. Examples include such items as involvement of students in the research activities, technology transfer plans, public information programs that will inform the general public of the benefits being gained from the research, and/or plans for incorporation of scientific results obtained into educational curricula consistent with educational standards.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
COOPERATIVE AGREEMENT

1. To:
2. C. A. Number:
3. Supplement:
4. Effective Date:
5. Expiration Date:
6. For Institute entitled: **NASA BioScience and Engineering Institute**
7. Under the direction of (Institute Lead):
8. Award History / Funding History

Previous Amount:	$	Previous obligation:	$
This action:	$	This action:	$
Total to date:	$	Total obligation to date:	$

9. NASA Purchase Request Number: PPC Code:
   Accounting Code: Appropriation Data:
10. Points of Contact (name of office or individual, address, and telephone number):

Financial Management Administrator:	NASA _____ RESEARCH CENTER
Cooperative Agreement Awarder:	NASA _____ RESEARCH CENTER

11. This cooperative agreement is awarded under the authority of 42 U.S.C. 2473(c)(5), et seq., and is Subject to all applicable laws and regulations of the United States in effect on the date this agreement is awarded, including but not limited to 14 CFR part 1260 (Grants and Cooperative Agreements).

12. Applicable statement, if checked:

____ The Federal Demonstration Project General Terms and Conditions and the NASA Agency-Specific Requirements apply to this grant

____ No change is made to existing provisions or special conditions.

Applicable enclosure(s), if checked:

__**X**__Provisions
__**X**__Special conditions
_____Budget summaries and details

_____ Date

Grants Officer

13. SCOPE OF WORK

The scope of the NASA BioScience and Engineering Institute (NBEI) will include the definition, development, and implementation of a BioScience and Engineering Research Program which emphasizes NASA mission ground-based and flight research. The attached proposal (modified as jointly agreed upon) will serve as the detailed definition of the scope of work under this cooperative agreement.

SPECIAL PROVISIONS

14. 1250.51 COOPERATIVE AGREEMENT SPECIAL CONDITION (October 2000)

a. This award is a cooperative agreement as it is anticipated there will be substantial NASA involvement during performance of the effort. NASA and the Recipient mutually agree to the following statement of anticipated cooperative interactions which may occur during the performance of this effort:
(Reference the approved proposal that contains a detailed description of the work and insert a concise statement of the exact nature of the cooperative interactions that deals with existing facts and not contingencies.)

b. The terms "grant" and "Recipient" mean "cooperative agreement" and "Recipient of cooperative agreement," respectively, wherever the terms appear in provisions and special conditions included in this agreement.

c. NASA's ability to participate and perform its collaborative effort under this cooperative agreement is subject to the availability of appropriated funds and nothing in this cooperative agreement commits the United States Congress to appropriate funds therefore.

15. 1260.52 MULTIPLE YEAR COOPERATIVE AGREEMENT (October 2000)

This is a multiple year grant or cooperative agreement. Contingent on the availability of funds, scientific progress of the project, and continued relevance to NASA programs, NASA anticipates continuing support at approximately the following levels:

Year 2 $_____, Anticipated funding date _____.
Year 3 $_____, Anticipated funding date _____.
Year 4 $_____, Anticipated funding date _____.
Year 5 $_____, Anticipated funding date _____.

NOTE: This Cooperative Agreement may be renewed for an additional 5-year period. NASA anticipates that support will progressively decrease through years 8, 9, and 10.

16. 1260.53 INCREMENTAL FUNDING (October 2000)

a. Only $_____ of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funds during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grant Officer.

b. The recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not

obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.

17. INSTITUTE LIFE

The Government anticipates that this cooperative agreement will have a 5-year basic period with one 5-year optional extension. The Government is not obligated to execute an extension to the cooperative agreement if it determines that doing so is not in its best interest; in other words, the selected Recipient will not have the right to have the cooperative agreement continued.

Sixty days prior to the expiration date, the Government will notify the Recipient in writing of its intent to extend the Cooperative Agreement for five years. The Government may request an updated proposal to be submitted within 30 days after receipt of the notification. If a proposal is requested, details will be provided at the time of the request. A supplement will be executed by the Grants Officer to extend the Cooperative Agreement.

18. RESOURCE SHARING

The recipient agrees to share in the resources necessary for the research by charging to the Government no more than _____ percent of the cost of resources incurred in performing the work contemplated by the cooperative agreement as determined to be allowable in accordance with 14 CFR 1260.54. The remaining _____ percent, or more, or the allowable costs of resources of performance so determined will constitute the recipient's share and will not be charged to the Government under this cooperative agreement or under any other grant or contract (including allocation to other grants or contracts as part of an independent research and development program). The recipient will maintain records of all cooperative agreement costs of resources claimed by the recipient as constituting part of its share and such records shall be subject to audit by the Government.

For commercial firms partnering in intramural research proposals sponsored by the Institute, a substantial resource contribution on the part of the commercial partner is required consistent with 14 CFR 1274.202 (section entitled "Cost Sharing Requirements"). The commercial partner is expected to contribute at least 50 percent of the resources applicable to the extent of that organization's contribution to the overall research effort. Commercial partner contributions may be either cash or non-cash or both. In those cases in which a contribution of less than 50 percent is anticipated from the commercial partner, approval of the Associate Administrator for Procurement (Code HS) is required prior to award. The request for approval should address the evaluation factor in the solicitation and how the proposal accomplishes those objectives to such a degree that a share ratio of less than 50 percent is warranted.

Note: The resource contribution of any commercial organization participating as a partner shall count toward the overall resource sharing arrangement proposed for the Institute.

19. REQUIREMENTS APPLICABLE TO FOREIGN PARTICIPATION

Specific Language To be Provided Prior to Award of the Cooperative Agreement.

20. ANNUAL SCIENTIFIC AND TECHNICAL REPORT

An annual scientific and technical report shall be submitted summarizing the year's accomplishments and the overall plan for the next year's activities. This report The annual

scientific and technical report shall discuss the scientific research being pursued, actual or anticipated results, and the specific technologies being pursued. Any pertinent information resulting from the Institute's Board of Directors activities should be included in this report. The report is due 30 days after the end of each 1-year period. One copy of the report shall be submitted to each person on the following distribution list at the address above:
Distribution:
SA/Technical Officer

One micro-reproducible copy to:
NASA Center for Aerospace Information (CASI)
Attn: Document Processing Section
7121 Standard Drive
Hanover, MD 21076

NASA encourages the widest practicable dissemination of research results at any time during the course of the cooperative agreement. All information disseminated as a result of the cooperative agreement, shall contain a statement which acknowledges NASA's support and identifies the cooperative agreement by number. Prior approval by the NASA Grants Officer is required only where the recipient requests that the results of the research be published in a NASA scientific or technical publication. Two copies of each draft publication shall accompany the approval request.

21. REVIEWS

The progress and plans of the NBEI will be reviewed annually for the first four years prior to receiving continued NASA support. In the fourth year of operation the NBEI may submit a renewal proposal for continued support which will undergo Peer Review. This review will include a comprehensive evaluation of the achievements and future plans. The review will determine if the NBEI is meeting the goals and objectives as originally proposed. Successful NBEI's will be renewed for another 5 year period. An incremental phase down of activity will occur over the last 3 years of operation, that is, in years 8, 9 and 10. Once a NBEI is renewed, Peer Review will shift to every two years, that is, in years 6 and 8. NBEI's that do not pass the fourth year renewal review will be phased-out over a one-year period at a reduced level of funding. NASA will support a NBEI for a maximum of 10 years.

22. KEY PERSONNEL AND FACILITIES

a. The personnel and/or facilities listed below are considered essential to the work being performed under this cooperative agreement. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Recipient shall (1) notify the Grants Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this cooperative agreement.

b. The Recipient shall make no diversion without the Grants Officer's written consent; provided, that the Grants Officer may ratify in writing the proposed change, and that ratification shall constitute the Grants Officer's consent required by this clause.

c. The list of personnel and/or facilities shown below may, with the consent of the contracting parties, be amended from time to time during the course of the cooperative agreement to add or delete personnel and/or facilities.

Personnel	Facilities
Institute Director	

23. ELECTRONIC FUNDS TRANSFER PAYMENT METHODS (October 2000)

a. Payments under this grant will be made by the Government by electronic funds transfer through the Treasury Fedline Payment System (FEDLINE) or the Automated Clearing House (ACH), at the option of the Government. After award, but no later than 14 days before an invoice is submitted, the Recipient shall designate a financial institution for receipt of electronic funds transfer payments, and shall submit this designation to the Grant Officer or other Government official, as directed.

b. For payment through FEDLINE, the Recipient shall provide the following information:

(1) Name, address, and telegraphic abbreviation of the financial institution receiving payment.

(2) The American Bankers Association 9-digit identifying number for wire transfers of the financing institution receiving payment if the institution has access to the Federal Reserve Communication System.

(3) Payee's account number at the financial institution where funds are to be transferred.

(4) If the financial institution does not have access to the Federal Reserve Communications System, name, address, and telegraphic abbreviation of the correspondent financial institution through which the financial institution receiving payment obtains wire transfer activity. Provide the telegraphic abbreviation and American Bankers Association identifying number for the correspondent institution.

c. For payment through ACH, the Recipient shall provide the following information:

(1) Routing transit number of the financial institution receiving payment (same as American Bankers Association identifying number used for FEDLINE).

(2) Number of account to which funds are to be deposited.

(3) Type of depositor account ("C" for checking, "S" for savings).

(4) If the Recipient is a new enrollee to the ACH system, a "Payment Information Form," SF 3881, must be completed before payment can be processed.

d. In the event the Recipient, during the performance of this grant, elects to designate a different financial institution for the receipt of any payment made using electronic funds transfer procedures, notification of such change and the required information specified above must be received by the appropriate Government official 30 days prior to the date such change is to become effective.

e. The documents furnishing the information required in this clause must be dated and contain the signature, title, and telephone number of the Recipient official authorized to provide it, as well as the Recipient's name and grant number.

f. Failure to properly designate a financial institution or to provide appropriate payee bank account information may delay payments of amounts otherwise properly due.

g. The requirements set forth in this special condition supercedes grant provision § 1260.26, Financial Management.

24. 1260.56 WITHHOLDING (October 2000)

If a Recipient fails to comply with the terms and conditions of this grant or cooperative agreement, including reporting requirements, NASA may withhold advance payments under this award, and may also withhold future awards to the Recipient, pending correction of the deficiency by the Recipient. If advance payments are withheld, the Grant Officer will notify the NASA Financial Management Office when payments may resume.

25. PROVISIONS INCORPORATED BY REFERENCE

The following provisions are incorporated by reference. Provisions incorporated by reference have the same force and effect as if they were given in full text. Source: 14 CFR Part 1260. Copies of the Code of Federal Regulation volumes are available in many libraries and for purchase from the Superintendent of Documents, Government Printing Office, Washington, DC 20420. Copies of OMB Circulars referenced in the provisions may be obtained from the Office of Administration, Publications Unit, Room G-236, New Executive Office Building, Washington, DC 20503. An index of existing Circulars is contained in 5 CSFR 1310.

PROVISIONS
The following Provisions are incorporated by reference:

FULL TEXT REFERENCE	TITLE	DATE
§ 1260.21	Compliance With OMB Circular A-110	**October 2000**
§ 1260.23	Extensions	**October 2000**
§ 1260.24	Termination and enforcement	**October 2000**
§ 1260.25	Change in principal investigator or scope	**October 2000**
§ 1260.26	Financial Management	**October 2000**
§ 1260.27	Equipment and Other Property	**October 2000**
§ 1260.28	Patent Rights	**October 2000**
§ 1260.29	Reserved	
§ 1260.30	Rights in Data	**October 2000**
§ 1260.31	National Security	**October 2000**
§ 1260.32	Nondiscrimination	**October 2000**
§ 1260.33	Subcontracts	**October 2000**
§ 1260.34	Clean Air and Water	**October 2000**
§ 1260.35	Investigative Requirements	**October 2000**
§ 1260.36	Travel and Transportation	**October 2000**
§ 1260.37	Safety	**October 2000**
§ 1260.38	Drug-free workplace	**October 2000**

Provisions incorporated by reference have the same force and effect as if they were given in full text. Source: 14 CFR Parts 1260 and 1274. Copies of Code of Federal Regulation volumes are available in many libraries and for purchase from the Superintendent of Documents, Government Printing Office, Washington, DC 20402. Copies of OMB Circulars referenced in the provisions may be obtained from the Office of Administration, Publications Unit, New Executive Office Building, Washington, DC 20503. An index of existing Circulars is contained in 5 CFR 1310.

EXHIBIT C

25. ATTACHMENT
Attachment 1 - Cost Reporting Format

NASA BIOSCIENCE AND ENGINEERING INSTITUTE (NBEI)

QUARTERLY COST REPORT

I. COST DEFINITION

Cost is the financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or a project. Costs reported to NASA by the recipient are used as the basis for recording a liability of the U.S. Government. The quarterly cost report will also be used for evaluating the recipient's cost performance and for planning, monitoring, and controlling resources.

The U. S. Government uses the accrual method of accounting. The accrual method of accounting requires that the cost be reported to NASA in the period in which the benefit is received without regard to the time of payment. Examples of accrual accounting for common cost elements to be reported are as follows:

COST ELEMENT	DESCRIPTION
Labor	Reported to NASA as hours/costs (including benefits) are incurred.
Subcontracts	Subcontractors are required to report cost to NASA using the accrual method of accounting, the same format, and the same time period as the recipient's quarterly cost report. For firm-fixed price subcontracts with a contract value greater than $500,000, the recipient is required to document the reporting methodology used to generate the accrual and provide the information to the Contracting Officer.
Facility Costs/Leases	Reported to NASA using a proration over the life of the lease.
Consultants	Reported to NASA as hours/costs are incurred (not when billed).
Equipment, Materials, or Supplies (commercial off-the-shelf)	Generally reported to NASA when received and accepted by the recipient.
Travel	Travel is reported as incurred, generally using the dates of travel as guidance for reporting cost.

Indirect Costs	The indirect cost rate is negotiated between the recipient (educational institution) and the single responsible cognizant agency.
Cost Sharing	Any funds received by NBEI from sources other than NASA will be reported in the period in which they are received. These costs will be added to the total estimated costs expended to calculate the total cost of the NBEI program. A supplement must be attached to the quarterly report identifying each contributing organization with an explanation of the amount of funds received from that organization and why they were received.
Total Program Costs	These costs are the sum of the total costs and the amount of cost sharing.

Prior period cost adjustments will be reported in the prior quarter actual cost column. The reason for the adjustment and the amount of the adjustment will be footnoted directly on the quarterly cost report.

The quarterly cost report is due no later than the 15th working day of the month following the quarter being reported.

II. COMPLETION INSTRUCTIONS

The following instructions refer to the attached quarterly cost report format. The instructions are divided by each individual columns shown in the quarterly cost format.

1. CURRENT QUARTER

(a) This Quarter Actual - This column will show all costs expended during the current quarterly reporting period.

(b) This Quarter Planned - This column will show the contractor's previous reporting period planned quarterly costs for the current quarterly report. Therefore, these costs will be the sum of the monthly costs from column 2(a) of the previous quarterly report.

(c) Cumulative Actual - This column will show all cumulative costs expended through end of the current quarterly reporting period.

(d) Cumulative Planned - This column will show cumulatively what the contractor had projected from the previous quarter. Therefore, this column is the **sum** of the cumulative actual from the previous quarterly report and column 1(b) of the current quarterly report [column 1(b) of the current quarterly report is the same as the sum of the monthly costs from column 2(a) of the previous quarterly report as explained above].

2. ESTIMATED COST TO COMPLETE

(a) Next Quarter - This column will reflect the amount of expenditures that the contractor plans to spend in the quarter following the current quarterly reporting period. The contractor will insert the costs projected for the next quarter by month.

(b) Balance for Fiscal Year - This column will reflect the amount of expenditures that the contractor plans to spend from the end of the next quarterly reporting period to end of the current Government fiscal year. If the current quarterly reporting period happens to end when the current fiscal year ends, then this column will reflect zero expenditures.

(c) Balance of the Cooperative Agreement (C.A.) - This column will reflect the balance of the cooperative agreement value beginning with the next fiscal year. Therefore, this column will be a "plug in" number to make the sum of columns 1(c), all of 2(a), 2(b), and 2(c) equal the cooperative agreement value.

3. COOPERATIVE AGREEMENT VALUE

This column shows the current negotiated cooperative agreement value. The sum of columns 1(c), all of 2(a), 2(b), and 2(c) will equal the cooperative agreement value.

4. OUTSTANDING COMMITMENTS

This column will reflect all the outstanding commitments or unfilled orders as of the current report date. Outstanding commitments are supplies, materials, or anything that has been ordered and is waiting to be received.

NASA BIOSCIENCE AND ENGINEERING INSTITUTE (NBEI)

QUARTERLY COST REPORT

Period from: _____ to: _____

COST DESCRIPTION	1. CURRENT QTR				2. ESTIMATED COST TO COMPLETE					3.	4.
	(a) This Quarter Actual	(b) This Quarter Planned	(c) Cum to date Actual	(d) Cum to date Planned	(a) Next Quarter Projection Month of ____	Month of ____	Month of ____	(b) Balance of Fiscal Yr	(c) Balance of Coop Agr	**COOP. AGR. VALUE**	**OUTSTND COMM.**
Labor hours											
Labor Dollars											
Other Direct Costs:											
Subcontracts											
Facility Costs											
Consultants											
Equipment											
Supplies											
Travel											
Other											
Total Other Direct Costs											
Other Applicable Costs											
Subtotal											
Indirect Costs____%											
TOTAL COSTS											
Cost Sharing											
TOTAL PROGRAM COSTS											

Proposal Submission Information

NASA Peer Review Services (NPRS) utilizes an electronic, internet-based system of collecting Notice of Intent (NOI) and Proposal submission information for all proposals submitted in response to all types of NASA Research Announcement. The following instructions describe the process in greater detail.

SYS-EYFUS Home-page: *http://proposals.hq.nasa.gov*

A username and a password is required to submit a NOI or Proposal information through http://proposals.hq.nasa.gov

To check whether you are already in the system, please go to *http://proposals.hq.nasa.gov/forgotpassword/forgotlogin.cfm*

and type in your first and last name to search our database.

- If you see your name listed in the result set, please select the appropriate radio button and click on continue. This will trigger the system to send an automatic email message with your username and password to your email address listed in our database.
- If your name does not show up on the result set, please choose the radio button named " None of the Above" and click on continue. This will allow you to add yourself as a NEW USER to the system. The system will prompt you to choose a username and a password towards the end of the new user addition procedure. This username and password combination allows you to access the system and submit NOI's and Proposal Summaries.

If you have a login username and a password for the SYS-EYFUS system:

A. How to submit a Notice of Intent (NOI):

- Visit *http://proposals.hq.nasa.gov/*
- On the left hand side, in the Proposal Links Section click on Login
- Input your username and password and click on continue
- To submit a notice of intent click on New Notice of Intent option from the Options screen, and the Division Specific Opportunities screen will appear.
- In the selection window: highlight **Physical Sciences** and click on continue
- Click on **CAN-01-OBPR-01 NASA BioScience and Engineering Institute CAN**, and then click on Continue.
- This will bring you to the Notice of Intent submission Form
- Fill in all the fields, and select a theme from the pop-up lists. All fields are required.
- Click on Submit NOI Page.

- Next is the Team Member Page screen, where you can add or remove team members.

1. Please add any Co-Investigators (COIs). To add a COI, highlight the COI option on the selection list and type in first and last name and click on search. When the resulting set appears, choose the appropriate radio button and click on ADD to add the COI to this NOI. After you are done, click on "Continue". If the team member is not listed in our database, please have them add themselves as a new user to the system.

2. Please add any other paticipating organizations (i.e., use of specific facilities, etc.). An individual point of contact must be chosen for each of these participating organizations. To add a participating organization point of contact, highlight the Collaborator Option and proceed as described in 1.

You can repeat these processes to add multiple team members.

- Click on "resubmit noi page"
- Then click on the Continue button

B. How to submit Proposal Form Information:

- Visit *http://proposals.hq.nasa.gov/*
- On the left hand side, in the Proposal Links Section click on Login
- Input your user id and password and click on continue
- To submit a New Proposal Summary click New Proposal Cover Page option from the SYS-EYFUS Options screen, and the New Proposals Cover Page screen will appear.
- Click on New Proposal Cover Page option, and the Division Specific Opportunities screen will appear.
- In the selection window: highlight **Physical Sciences** and click on continue
- Click on **CAN-01-OBPR-01 NASA BioScience and Engineering Institute CAN**, and then click on Continue.
- this will bring you to the Proposal Cover Page Form
- Fill in all the fields, and select a theme from the pop-up lists. All fields are required.
- Click Continue. Next is the Team Member Page screen, where you can add or remove a team member. "Authorizing Official" and "Contact in case of award" are required to be added to the list. Please add any COI's or points of contact from other participating organizations (the latter should be added under the ROLE Collaborator). To add a team member: Highlight the Team Member ROLE on the selection list and type in first and last name and click on search. When the result set appear, choose the appropriate radio button and click on ADD to add the team member to this proposal. You can repeat this process to add multiple team members. After you are done, click on "Continue". If the team member is not

listed in our database, please have them add themselves as a new user to the system.

- Next is the Proposal Options Page.
- Please fill out the budget form by clicking on the "**Budget**" button, filling in project costs, and clicking "Continue." This will bring you to the Proposal Budget Review Page. Click Continue if the information is correct.
- At the next screen click the **Show/Print** button.
- At the Page entitled "**Proposal Information Item List**" click **Show** to preview your **Proposal Cover Page**. Print the cover page once you have reviewed the information. The cover page must be signed by both the Principal Investigator and the authorizing official and attached to the font of your proposal before submission of hard copies to NASA.
- **One (1) signed original and nine (9) copies of the proposal should be submitted to NASA by 4pm of September 10, 2001.**